

Memorandum

To
Robert W. Selander

From
Mary C. Johnson (ext. 5-5563)

Date
November 17, 1997

Subject
Mondex USA Amex Issue

Copies to
Bill Jacobs, Guy Barudin

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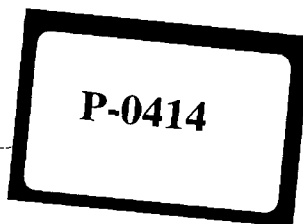
Per your request, this memo provides a point of view on the issue of Amex joining as an equity owner of Mondex USA ("the Request Memo") based on only two days of analysis.

Summary/Recommendations

The Request memo significantly over-states the benefits of Amex's equity position in Mondex USA without clearly articulating the competitive risks. MasterCard approval should not be granted unless the benefits are significantly strengthened and far more clearly defined, and the risks contained by special provisions for Amex's purchase. The most significant of these risks include sharing brand, opening DDA access and establishing a precedent for even greater risk from downstream industry restructuring. If Amex were to be allowed to purchase equity in Mondex USA, it is our view that this would not preclude them from continuing ongoing investments in competitive platforms in order to "hedge their bets" as this industry emerges. Rather than choosing/backing one platform over another (as the Request Memo implies), an Amex purchase could cause further industry confusion rather than clarity and support for our chosen platform.

The most valid risk identified by the Request Memo is the potential for Amex to partner with Visa. An Amex ownership stake in Mondex USA does not appear to preclude that possibility although further legal research is warranted here. In addition, if new industry events were to occur (e.g. Amex is purchased by one of our well-capitalized members, or alternatively, chooses to buy one of our members as a proactive stance into getting into the bank distribution system), we would need to develop a specific member policy on this issue.

The short-term action steps seem relatively clear and consistent with current MasterCard competitive program actions we've taken over the last 1-2 years, namely that we must protect our brand equity and avoid actions that would purportedly damage the equity built and invested by the membership.



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The more strategic issues we need to deal with include the following:

- Is the MULTOS multi-application operating platform a competitive differentiator that we want to enjoy some market leadership from and what is possible (link to original intent of purchase plus issue of source of economic benefits), OR do we want industry participants to embrace this platform so that the deployment of applications is as broad and encompassing as possible (seems to be where MAOSCO is moving)? If the former, we must put into place the appropriate leverage points and economic benefits as soon as possible, always realizing in the back of our mind, that market forces may shorten the time available to realize these benefits. If the latter, we should be encouraging an industry standard among participants with perhaps some premium for the fact that we invested early and need to recover some up-front investment. If the latter, where do we recover not only up-front investment but ongoing annuity streams of revenue? (e.g. razor/razor blades analogy, if not the platform, then applications? If not SV application, then per-chip tolls?).
- The broader issue of our franchise membership composition as this industry globalizes, restructures and generates temporary alliances among previously distinct competitors.

Both of these issues need much more comprehensive analysis - the first of which, I understand, is already an ongoing issue being worked on by our chip business and Mondex colleagues.

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Our analysis is based on briefly considering the following relevant dimensions:

- Governance issues and legal commitments
- Technology competition
- Membership and industry competition issues.

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2. Technology Competition

Our secondary research suggests that Amex is active in a variety of competing chip and stored value technologies - given their capital base/affordability and an industry perspective that no-one really knows how chip will deploy at what pace in the future, it is probably a reasonable management perspective to invest in multiple platforms until a strong leader emerges.

Three aspects of Amex's interest in platforms need to be highlighted.

- Proton (platform but more emphasis on creating single terminal that accepts any chip card)
- JavaCard Forum (programming language and computing platform more for the applications that ride on top of the operating platform)
- MAOSCO.

A chronology of key Amex and Proton chip activities include:

2/95	<ul style="list-style-type: none">• Banksys (private company, founded in 1989, approx. 600 employees, transaction acquirer for 60 Belgian banks) introduces Proton: centrally accounted, holds only one currency
6/96	<ul style="list-style-type: none">• First Proton electronic purse campus application
11/96 - AMEX	<ul style="list-style-type: none">• Signs agreement to license/test Proton SV technology from Banksys• Using IBM multifunction technology, launches AA and Hilton trials• Using GemPlus, launched SmartCity, a smart card platform for closed systems• Launches pilot with U.S. Navy for single-application SV card• Develops a single-card acceptance device to process multiple applications from Amex, MasterCard and Visa with other smart card suppliers
5/97 - AMEX	<ul style="list-style-type: none">• Launches Hilton multi-function SmartCard for business travelers to do automatic check-in/check-out
8/97 - AMEX	<ul style="list-style-type: none">• Signed agreement with ERG, Ltd. (Australian firm) to issue Proton-based cards in Australia & New Zealand (same T&E applications as in the U.S.)
9/97 - AMEX	<ul style="list-style-type: none">• Launches US Marines test for SmartBase card that has purse and T&E management
10/97	<ul style="list-style-type: none">• Banksys states 20 million Proton cards issued in 14 countries (includes cards under different licensee names, e.g. Exact in Canada)

Amex is not a current Forum member of the JavaCard but has attended representing the banking and finance industry. Some question about whether they want to become, or will be allowed to be become, forum members. Today, members include:

Statutory members

- Bull
- DeLaRue
- GemPlus
- Schlumberger

- Prospective members
 - Giesecke & Devrient
 - Hitachi
 - IBM
 - Sun
 - Toshiba
 - Keycorp (not validated)
 - Motorola (not validated).

In addition, Amex has expressed interest in joining MAOSCO as a member (the Request Memo seems to indicate that MXI expects Amex to join). In checking the rules of MAOSCO, it is our understanding that the agreement says:

- Members must "actively promote" MULTOS in the marketplace but there is no definition of what this means. While MXI and MCI have tried to translate that to include a specific targeted number of MULTOS cards, members have been unwilling to commit given the nascent nature of the market. Support in marketing brochures, conferences and press releases seems to be the current extent of the support.
- Members must commit to enhancing the MULTOS operating system - again, the prevailing thoughts of our chip people suggest that members could patent their technology innovations before bringing it to the MAOSCO table
- Members are not prevented from joining other similar consortia (i.e., non-exclusivity). GemPlus and Motorola are members of both MAOSCO and JavaCard Forum
- Members are not prevented from supporting other chip platforms as long as they promote them equally. The issue is that members do not want to be locked into a specific chip operating platform in an emerging market.

Implications for MasterCard:

There are several elements of Amex's chip strategy which differ from our approach:

- While MasterCard and Mondex are pursuing open-system market approaches, Amex's chip strategy appears to be targeting business travelers with multi-application cards: corporate cards, ticketless travel and loyalty points. Using their significant penetration into this T&E segment, they are driving towards relationship/combination cards (and presumably getting consumers to get rid of their Visa and MasterCard cards on their way to a single Amex card).

- They support the need to audit each transaction - David Boyles, Amex's chip executive says "one of our main interests in Proton is that it is an accountable system"[Bank Network News, 1/28/97].
- They are not relying on stored value to launch their programs - rather, they seem to value the use of the chip to store financial (i.e. Amex account number to bill) and non-financial information (e.g. frequent flyer numbers, seat preferences) as a convenience factor for their target consumer segment.
- The Request Memo identifies as a threat, the possibility of Amex issuing Proton stored value on a MULTOS chip platform. While this is a threat to the Mondex e-cash product in the U.S., we assume that MasterCard and MXI will derive revenue from any MULTOS-based deployment, so this risk is a greater threat to *Mondex USA* rather than *MasterCard*. The implication is that visible global support from Amex would outweigh the lost revenue, although there is no financial analysis to support this claim.

An Amex stake in Mondex USA DOES NOT commit Amex to either Mondex e-cash or MULTOS in nearly the magnitude implied by the Request Memo.

3. Membership and Industry Competition Issues

- From an industry perspective, the addition of Amex to Mondex USA would pose a greater potential threat to MasterCard members from anticipated M&As than would the addition of Visa. In fact, Visa could position this issue to their advantage, by claiming that the competitive implications of Amex in the Mondex USA Board might be rationale for U.S. issuers to direct their efforts away from Mondex towards Visa's Proton/JavaCard chip platform.
- Amex could potentially form a chip card alliance with Visa. The Request Memo cited that as justification to allow Amex become an equity owner of Mondex USA (i.e. preventive nature). The danger of an Amex-only issuance of Proton-based chip cards is much less threatening than a combined effort by Visa and Amex. However, the Amex purchase of Mondex USA equity DOES NOT mitigate the risk of an Amex/Visa alliance because the investment would not be relatively more substantial than its commitments to other partners and tests.
- If Amex were to deliver against their estimates of 750,000 cards and 30,000 terminals by YE1999, our hypothesis is they could do this completely within the T&E category (i.e. current trials with Hilton and American Airlines) The effect of such a deployment would be to further entrench Amex in those markets - this time with a global standard technology - to the detriment of MasterCard members.

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- The Request Memo identifies that giving Amex DDA access for downloads is a strategic risk, but mitigates that by proposing an unwieldy two-card download scheme (ATM card for approval, Mondex Amex card for value load). It is our impression that this type of complex scheme:
 - Does not fit within MXI's strategic vision for the convenience of cash replacement
 - Does not sufficiently address the precedent of allowing Amex cardholders access to member accounts
 - Bring up the issue of member needing to receive a very substantial value premium above current Mondex USA equity valuation in return for that access.